



CENTER FOR HEALTH STATISTICS  
**DATA SUMMARY**  
REPORT REGISTER NO. DS98-10000  
(October 1998)

**AIDS DEATHS**  
**CALIFORNIA, 1987-1996**

## Introduction

This report presents acquired immune deficiency syndrome (AIDS) deaths in California for the years 1987 through 1996. In accordance with the National Center for Health Statistics, International Classification of Diseases, Ninth Revision (ICD-9) codes 042-044 were used to compile AIDS data beginning in 1987. Prior to 1987, AIDS was referred to as human T-cell lymphotropic virus-III or lymphadenopathy-associated virus, which was classified under ICD-9 codes 078.5, 117.5, 136.3, 173.9, 279.1, and 279.3. These ICD-9 codes are not directly comparable to ICD-9 codes 042-044. Consequently, pre-1987 AIDS death data were not examined in this report.

Since the first cases of AIDS were identified in 1981 and the human immunodeficiency virus (HIV) was recognized as the etiologic agent in 1984, great strides have been made in understanding HIV infection, its clinical outcomes, and its epidemiology.<sup>1</sup> Over the past decade, various staging and classification systems were developed to measure the progression of HIV within infected people. These systems have evolved over time as more became known about the full spectrum of HIV-related diseases. In general, the stages or classifications within all of these systems ranged from the least severe cases, which are people experiencing asymptomatic conditions, to the most severe cases, which are those experiencing full-blown AIDS. Although these staging and classification systems are utilized for several purposes, including surveillance, they were primarily developed to determine the progressive sequence of HIV, and to provide guidance towards administering treatment.<sup>2</sup>

The HIV infection is essentially transmitted by three routes: sexual (homosexual contact among men, and heterosexual contact); parenteral (exposure to blood through injection drug use, transfusions, occupational needle stick injuries and other blood exposures); and perinatal (during pregnancy, intrapartum, and postpartum due to breastfeeding).<sup>3</sup> From 1986 through 1996, men who have sex with men was the most prevalent means of transmitting the virus in the United States followed by injection drug use.<sup>4</sup> California's data reflected similar results from 1978 through 1997.<sup>5</sup>

The AIDS epidemic continues to be one of the most serious public health problems facing Americans. From 1988 through 1996, deaths due to AIDS have been one of the ten leading causes of death in California as well as the United States. In 1996, there were 4,207 AIDS deaths in California representing nearly one out of every eight AIDS deaths nationwide. Only New York State had a higher death toll (5,841) due to AIDS. However, deaths among Americans due to AIDS declined dramatically for the first time in 1996, dropping 25 percent.<sup>4</sup> Preliminary 1997 estimates for the U.S. showed another substantial decline of 48.9 percent, and AIDS also dropped from the 8<sup>th</sup> leading cause of death to the 14<sup>th</sup> leading cause.<sup>6</sup> In 1996, California experienced its second consecutive decline in AIDS deaths, and the number of AIDS deaths that year showed a significant drop of 35 percent from the 1995 figure. These sharp declines in AIDS deaths were largely due to the increasing use of new antiretroviral therapies including protease inhibitors.<sup>7</sup> Nevertheless, the prevalence of HIV/AIDS incidence continues to increase, despite the recent decrease in AIDS deaths. Consequently, further improvements in surveillance systems to more effectively track emerging trends, and improvements in prevention and treatment services are required in order to keep pace with this epidemic.

The United States Public Health Service has established a number of health objectives pertaining to HIV/AIDS, which are published in *Healthy People 2000*.<sup>8</sup> Since these objectives are related to HIV/AIDS cases and not AIDS deaths, California's progress in meeting these objectives are not analyzed in this report. However, some of these objectives are analyzed in the Center for Health Statistics reports, *Healthy California 2000*, and *County Health Status Profiles*.<sup>9,10</sup>

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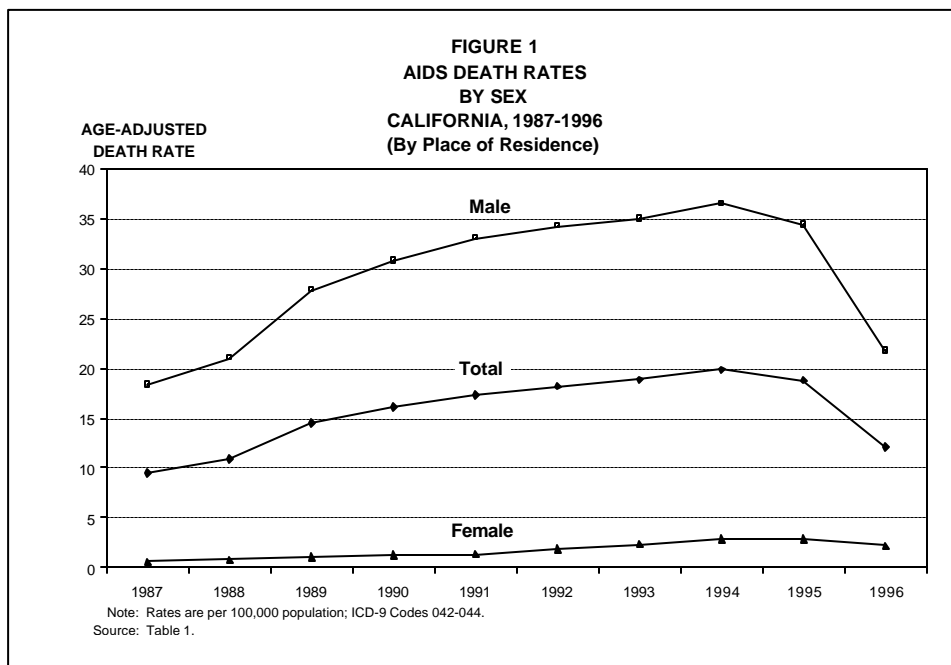
In addition, due to the complexities involved in the analysis of HIV/AIDS, the death data within this report should be supplemented with HIV/AIDS incidence data to thoroughly measure the impact of the AIDS epidemic. Data related to the incidence of HIV/AIDS, including behavioral risk factors and modes of transmission, can be obtained from the California Department of Health Services, Office of AIDS.

## AIDS Deaths, Crude and Age-Adjusted Death Rates by Sex, 1987-1996

As shown in **Table 1** (page 6), the number of AIDS deaths among California residents progressively increased from a low of 2,651 in 1987 to a high of 6,739 deaths in 1994. During the subsequent two years, the number of deaths decreased to 6,450 in 1995, and decreased again sharply in 1996 to 4,207. The 1996 figure is the lowest number of deaths due to AIDS since 1988. The number of AIDS deaths by sex showed males had substantially more deaths than females from 1987 through 1996. The lowest number of deaths among males was 2,556 in 1987, while the highest number of deaths was 6,261 in 1994. In comparison, the lowest number of deaths among females was 95 in 1987, whereas the highest number of deaths was 488 in 1995. Both males and females showed declines in the number of AIDS deaths in 1996, which were 3,838 and 369 respectively.

California's crude death rates due to AIDS followed the same pattern as the death numbers. The crude death rates rose from a low of 9.6 per 100,000 population in 1987 to a high of 21.2 in 1994, an increase of 120.8 percent. During the following two years, the crude death rates declined sharply to 13.0 in 1996, which was a 38.7 percent decrease from the 1994 figure. Analysis of the death rates by sex showed males had significantly higher death rates than females during the 10-year period. The lowest death rate among males was 18.5 in 1987, while the highest death rate was 39.3 in 1994. In comparison, the lowest death rate among females was 0.7 in 1987, whereas the highest death rate was 3.0 in 1994 and 1995. Also, the upward trends in both the male and female death rates from 1987 through 1994 were significant. In 1996, the male death rate declined to 23.7, which was the lowest death rate since 1988. For females, the death rate declined to 2.3 in 1996, which was the lowest death rate since 1992.

As illustrated in **Figure 1**, the age-adjusted death rates due to AIDS were relatively analogous to the crude death rates from 1987 through 1996. During this period, the total age-adjusted death rates increased from 9.5 per 100,000 population in 1987 to a high of 19.8 in 1994, which was a significant upward trend. The total age-adjusted death rate then declined to 12.1 in 1996 representing a 38.9 percent decrease. Analysis of the death rates by sex showed the male age-adjusted death rates significantly increased from 18.3 per 100,000 population in 1987 to 36.5 in 1994. During the next two years, the male age-adjusted death rates declined to 21.7 in 1996 representing a 40.5 percent decrease. The female



age-adjusted death rates significantly increased from 0.6 per 100,000 population in 1987 to a high of 2.9 in 1994 and 1995. In 1996, the female age-adjusted death rate dropped back down to 2.2, which was a 24.1 percent decrease from the 1995 figure. Further analysis of the age-adjusted death rates by sex also revealed a distinct disparity between the male and female age-adjusted death rates, although the gap has been narrowing over the 10-year period. The male age-adjusted death rate was 30.5 times higher than the female age-adjusted death rate in 1987. Since 1987, the differential in the male to female age-adjusted death rates has steadily decreased over the years to a low of 9.9 to 1 in 1996.

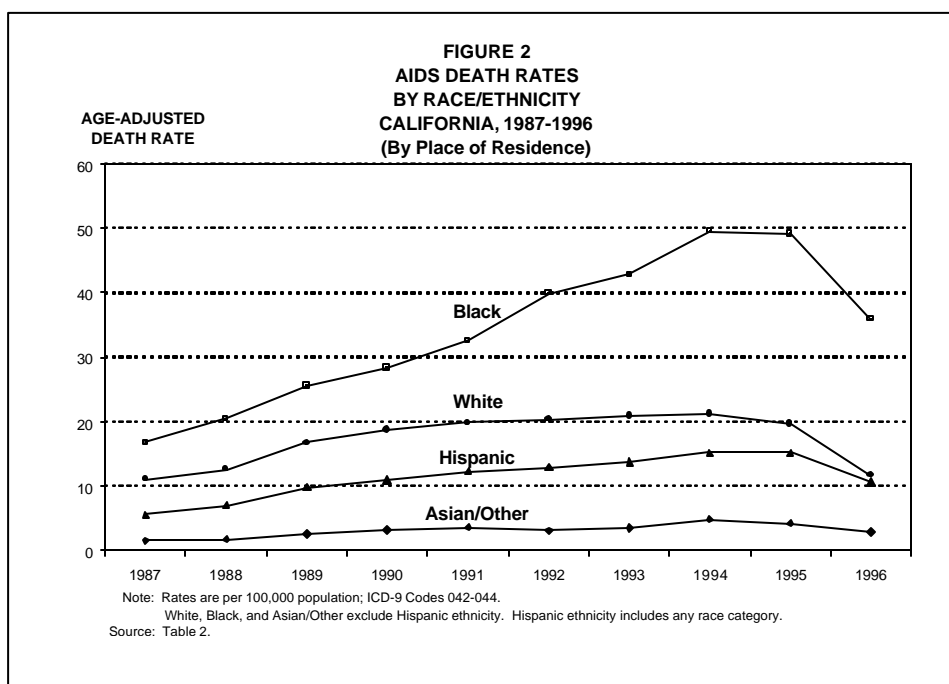
## AIDS Deaths, Crude, and Age-Adjusted Death Rates by Race/Ethnicity, 1987-1996

**Table 2** (page 7) shows AIDS death data by the four major race/ethnic groups from 1987 through 1996. During this period, the lowest number of deaths among all four race/ethnic groups occurred in 1987, while the highest number of deaths occurred in 1994 for Asian/Other and Whites and in 1995 for Blacks and Hispanics. In 1996, all four race/ethnic groups experienced sharp declines in their death numbers. In comparing AIDS deaths between the four race/ethnic groups, Whites had the highest proportion of deaths due to AIDS. From 1987 through 1996, 65.4 percent of the AIDS deaths was among Whites followed by 17.2 percent among Hispanics, 15.2 percent among Blacks, and 2.1 percent among Asian/Other.

Although Whites had the highest number of AIDS deaths, Blacks had significantly higher crude death rates than Whites, Hispanics, and Asian/Other. Throughout the 10-year period, the Black crude death rates were more than twice as high as White and Hispanic crude death rates, and over ten times higher than the Asian/Other crude death rates. Nevertheless, all four race/ethnic groups showed increases in their crude death rates from 1987 through 1994, and sharp decreases in 1996. The crude death rates among Blacks significantly increased from 16.8 per 100,000 population in 1987 to 51.3 in 1994. In 1996, the Black crude death rate dropped to 37.5, which was a 26.9 percent decrease from the 1994 figure. The crude death rates among Whites climbed from 11.8 in 1987 to 24.0 in 1994, and then decreased back down to 13.4 in 1996, which was the lowest crude death rate since 1987. The crude death rates among Hispanics significantly increased from 4.8 in 1987 to 14.4 in 1995, and then declined by 29.2 percent to 10.2 in 1996. The Asian/Other crude death rates also showed a significant increase from 1.7 in 1987 to 5.2 in 1994. Their crude death rate dropped to 3.2 in 1996, which was a 38.5 percent decline from the crude death rate in 1994.

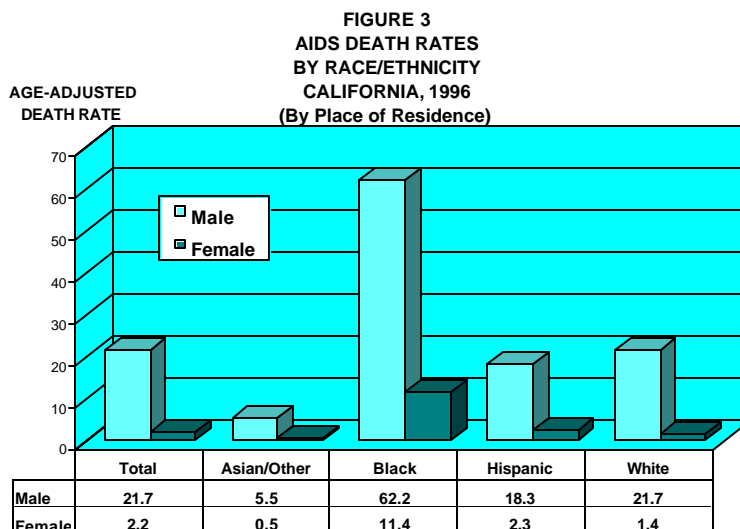
The age-adjusted death rates among the four race/ethnic groups were relatively similar to their crude death rates. As illustrated in **Figure 2**, Blacks had considerably higher age-adjusted death rates than the other three race/ethnic groups from 1987 through 1996. Their age-adjusted death rates significantly increased from 16.8 per 100,000 population in 1987 to a high of 49.5 in 1994. In 1996, the Black age-adjusted death rate dramatically declined to 35.9, which was a 27.5 percent decrease. The age-adjusted death rates among Whites, who had the second highest age-adjusted death rates, climbed from 11.0 in 1987 to 21.2 in 1994, and then dropped back down to 11.7 in 1996, which was proximate to their 1987 age-adjusted death rate.

The Hispanic age-adjusted death rates significantly increased from 5.6 in 1987 to a high of 15.2 occurring in 1994 and 1995. In 1996, the Hispanic age-adjusted death rate declined to 10.6, which was a 30.3 percent decrease from the 1995 figure. Also, the gap between the age-adjusted death rates among Hispanics and Whites has narrowed considerably over the past few years, and in 1996, their age-adjusted death rates were almost equivalent. The Asian/Other age-adjusted death rates, which were by far the lowest rates among the four race/ethnic groups, increased significantly from 1.6 in 1987 to 4.8 in 1994, and then dropped 39.6 percent to 2.9 in 1996.



## Age-Adjusted AIDS Death Rates by Age, Race/Ethnicity, and Sex, 1996

As illustrated in **Figure 3**, males had higher age-adjusted death rates than females in 1996, regardless of the race/ethnic group. The male age-adjusted death rates among Asian/Other, Blacks, Hispanics, and Whites were respectively 11.0, 5.5, 8.0, and 15.5 times higher than the age-adjusted death rates of their female counterparts. In comparing the male age-adjusted death rates among the four race/ethnic groups, Black males had by far the highest age-adjusted death rate (62.2 per 100,000 population). Their age-adjusted death rate was significantly higher than the age-adjusted death rates among White males (21.7), Hispanic males (18.3), and Asian/Other males (5.5). In comparing the female age-adjusted death rates, Blacks also had the highest female age-adjusted death rate (11.4 per 100,000 population). Their age-adjusted death rate was significantly higher than the age-adjusted death rates among Hispanic females (2.3), White females (1.4), and Asian/Other females (0.5).



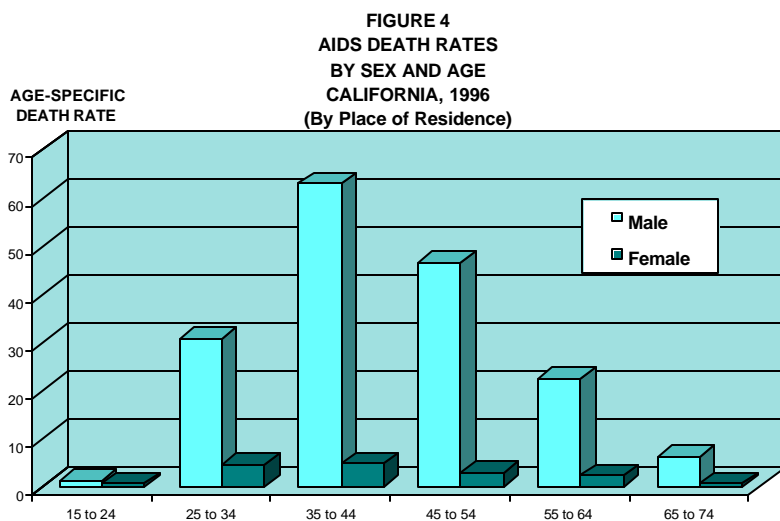
Note: Rates are per 100,000 population; ICD-9 codes 042-044.

White, Black, and Asian/Other exclude Hispanic ethnicity. Hispanic ethnicity includes any race category.

Source: Department of Finance, Race/Ethnic Population Estimates by County with Age and Sex Detail, 1970-1996, January 1998. Department of Health Services, Death Records.

## Age-Specific AIDS Death Rates, 1996

**Table 3** (page 8) shows California's 1996 age-specific death numbers and rates among the four race/ethnic groups by sex. California residents aged 35-44 had the greatest number of deaths due to AIDS (1,858) followed by those aged 25-34 (987), and aged 45-54 (933). Of the four race/ethnic groups, Whites had the most AIDS deaths in eight of the eleven age groups. Analyzing AIDS deaths by race/ethnicity and sex revealed that White males had the greatest number of deaths (2,162), which was 51.4 percent of all AIDS deaths (4,207) in California.



Note: Rates are per 100,000 population; ICD-9 Codes 042-044.

The rate among females aged 65 to 74 is unreliable; relative standard error is greater than 30 percent.

White, Black, and Asian/Other exclude Hispanic ethnicity. Hispanic ethnicity includes any race category.

Source: Table 3.

As illustrated in **Figure 4**, age-specific death rates among males were substantially higher than the age-specific death rates among females. The difference in the age-specific death rates between males and females ranged from a factor of 2.1 to 1 among decedents aged 15-24 all the way up to 16.0 to 1 among decedents aged 45-54. Males and females aged 35-44 had the highest death rates, which were respectively 63.0 and 4.9 per 100,000 population. Of the reliable age-specific death rates (rates with a relative standard error of less than or equal to 30 percent), males and females aged 15-24 had the lowest death rates, which were respectively 1.5 and 0.7 per 100,000 population.

## **AIDS Death Rates Among California Counties, 1994-1996**

**Table 4** (page 9) shows the 1994-1996 three-year average death numbers and rates due to AIDS for California and the 58 counties. Of the 58 California counties, Los Angeles County had the highest number of deaths (2,092.7), which was 36.1 percent of all AIDS deaths in California (5,798.7). San Francisco County had the next highest number of deaths (964.7) followed by San Diego County (522.7).

Of the counties with reliable crude death rates due to AIDS, San Francisco County by far had the highest crude death rate (128.4 per 100,000 population) and Ventura County had the lowest (5.7). The crude death rates for these two counties differed by a factor of 22.5 to 1. Moreover, San Francisco County's crude death rate was 5.7 times greater than Los Angeles County's crude death rate (22.4), which was the second highest crude death rate in California. Alameda County had the third highest crude death rate (22.1). The crude death rate for California was 18.1.

Of the counties with reliable age-adjusted death rates due to AIDS, San Francisco County had the highest age-adjusted death rate (104.4 per 100,000 population), while Ventura County had the lowest (5.2), which is consistent with the crude death rates. Los Angeles County also had the second highest age-adjusted death rate (20.8), and Sonoma County had the third highest age-adjusted death rate (19.6). California's age-adjusted death rate was 16.9. The difference between the crude and age-adjusted death rates shows how the county age composition differs from the 1940 United States population.

**TABLE 1**  
**DEATHS DUE TO HIV/AIDS**  
**BY SEX**  
**CALIFORNIA, 1987-1996**  
(By Place of Residence)

SEX	EVENT YEAR	DEATHS	POPULATION	CRUDE RATE	AGE-ADJUSTED RATE	95% CONFIDENCE LIMITS LOWER	UPPER
<b>TOTAL</b>							
	1996	4,207	32,383,811	13.0	12.1	11.7	12.4
	1995	6,450	32,062,912	20.1	18.8	18.3	19.3
	1994	6,739	31,790,557	21.2	19.8	19.4	20.3
	1993	6,287	31,515,753	19.9	18.8	18.4	19.3
	1992	5,996	31,186,559	19.2	18.2	17.7	18.6
	1991	5,533	30,563,276	18.1	17.3	16.8	17.8
	1990	5,041	29,942,397	16.8	16.1	15.6	16.5
	1989	4,367	29,142,106	15.0	14.5	14.0	14.9
	1988	3,177	28,393,094	11.2	10.9	10.5	11.3
	1987	2,651	27,716,860	9.6	9.5	9.1	9.8
<b>MALE</b>							
	1996	3,838	16,227,924	23.7	21.7	21.0	22.4
	1995	5,962	16,062,552	37.1	34.3	33.4	35.2
	1994	6,261	15,921,009	39.3	36.5	35.6	37.4
	1993	5,901	15,782,166	37.4	35.0	34.1	35.9
	1992	5,685	15,616,376	36.4	34.2	33.3	35.1
	1991	5,316	15,301,183	34.7	33.0	32.1	33.9
	1990	4,832	14,989,516	32.2	30.7	29.8	31.6
	1989	4,205	14,573,988	28.9	27.8	26.9	28.6
	1988	3,052	14,181,700	21.5	20.9	20.2	21.7
	1987	2,556	13,825,118	18.5	18.3	17.6	19.0
<b>FEMALE</b>							
	1996	369	16,155,887	2.3	2.2	2.0	2.4
	1995	488	16,000,360	3.0	2.9	2.6	3.2
	1994	478	15,869,548	3.0	2.9	2.6	3.1
	1993	386	15,733,587	2.5	2.4	2.1	2.6
	1992	311	15,570,183	2.0	1.9	1.7	2.1
	1991	217	15,262,093	1.4	1.4	1.2	1.5
	1990	209	14,952,881	1.4	1.3	1.1	1.5
	1989	162	14,568,118	1.1	1.1	0.9	1.2
	1988	125	14,211,394	0.9	0.8	0.7	1.0
	1987	95	13,891,742	0.7	0.6	0.5	0.8

Note: Rates are per 100,000 population; ICD-9 Codes 042-044.

Source: State of California, Department of Finance, Race/Ethnic Population Estimates by County with Age and Sex Detail, 1970-1996, January 1998.  
State of California, Department of Health Services, Death Records.

**TABLE 2**  
**DEATHS DUE TO HIV/AIDS**  
**BY RACE/ETHNICITY**  
**CALIFORNIA, 1987-1996**  
(By Place of Residence)

RACE/ ETHNICITY	EVENT YEAR	DEATHS	POPULATION	CRUDE RATE	AGE-ADJUSTED RATE	95% CONFIDENCE LIMITS LOWER	UPPER
<b>ASIAN/OTHER</b>							
	1996	116	3,645,998	3.2	2.9	2.4	3.4
	1995	163	3,530,931	4.6	4.2	3.6	4.9
	1994	179	3,429,125	5.2	4.8	4.1	5.5
	1993	128	3,323,013	3.9	3.5	2.9	4.2
	1992	109	3,209,399	3.4	3.1	2.5	3.7
	1991	117	3,068,424	3.8	3.6	2.9	4.2
	1990	101	2,930,570	3.4	3.2	2.6	3.9
	1989	76	2,774,167	2.7	2.6	2.0	3.2
	1988	51	2,616,586	1.9	1.8	1.3	2.3
	1987	41	2,465,134	1.7	1.6	1.1	2.1
<b>BLACK</b>							
	1996	854	2,275,401	37.5	35.9	33.5	38.3
	1995	1,150	2,250,502	51.1	49.1	46.3	52.0
	1994	1,145	2,232,841	51.3	49.5	46.6	52.4
	1993	986	2,214,376	44.5	42.7	40.0	45.4
	1992	914	2,192,451	41.7	39.9	37.3	42.5
	1991	721	2,147,691	33.6	32.6	30.2	35.0
	1990	610	2,105,207	29.0	28.3	26.0	30.6
	1989	543	2,061,823	26.3	25.5	23.4	27.7
	1988	425	2,024,779	21.0	20.5	18.5	22.4
	1987	334	1,992,361	16.8	16.8	14.9	18.6
<b>HISPANIC</b>							
	1996	949	9,330,740	10.2	10.6	9.9	11.4
	1995	1,308	9,100,994	14.4	15.2	14.4	16.1
	1994	1,268	8,882,966	14.3	15.2	14.3	16.1
	1993	1,117	8,658,118	12.9	13.7	12.9	14.6
	1992	1,009	8,421,133	12.0	12.9	12.1	13.8
	1991	884	8,097,870	10.9	12.3	11.5	13.2
	1990	759	7,774,789	9.8	10.9	10.1	11.7
	1989	647	7,419,574	8.7	9.9	9.1	10.7
	1988	419	7,077,579	5.9	7.0	6.3	7.7
	1987	324	6,754,398	4.8	5.6	5.0	6.3
<b>WHITE</b>							
	1996	2,288	17,131,672	13.4	11.7	11.2	12.2
	1995	3,829	17,180,485	22.3	19.6	19.0	20.3
	1994	4,147	17,245,625	24.0	21.2	20.6	21.9
	1993	4,056	17,320,246	23.4	20.9	20.3	21.5
	1992	3,964	17,363,576	22.8	20.3	19.7	21.0
	1991	3,811	17,249,291	22.1	19.8	19.2	20.4
	1990	3,571	17,131,831	20.8	18.7	18.1	19.3
	1989	3,101	16,886,542	18.4	16.7	16.1	17.3
	1988	2,282	16,674,150	13.7	12.6	12.0	13.1
	1987	1,952	16,504,967	11.8	11.0	10.5	11.5

Note: Rates are per 100,000 population; ICD-9 Codes 042-044.

White, Black, and Asian/Other exclude Hispanic ethnicity. Hispanic includes any race category.

Source: State of California, Department of Finance, Race/Ethnic Population Estimates by County with Age and Sex Detail, 1970-1996, January 1998.  
State of California, Department of Health Services, Death Records.

**TABLE 3**  
**DEATHS DUE TO AIDS**  
**BY RACE/ETHNICITY, AGE, AND SEX**  
**CALIFORNIA, 1996**  
**(By Place of Residence)**

RACE/ ETHNICITY	AGE GROUPS	1996 DEATHS			POPULATION			AGE-SPECIFIC DEATH RATE			95% CONFIDENCE LIMITS					
		TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	UPPER	MALE	UPPER	FEMALE	UPPER
TOTAL																
	Under 1	2	1	1	540,625	276,538	264,087	0.4 *	0.4 *	0.4 *	0.0	0.9	0.0	1.1	0.0	1.1
	1 to 4	7	2	5	2,298,325	1,175,708	1,122,617	0.3 *	0.2 *	0.4 *	0.1	0.5	0.0	0.4	0.1	0.8
	5 to 14	10	3	7	4,914,945	2,514,194	2,400,751	0.2 *	0.1 *	0.3 *	0.1	0.3	0.0	0.3	0.1	0.5
	15 to 24	46	32	14	4,217,867	2,198,841	2,019,026	1.1	1.5	0.7	0.8	1.4	1.0	2.0	0.3	1.1
	25 to 34	987	870	117	5,357,377	2,828,447	2,528,930	18.4	30.8	4.6	17.3	19.6	28.7	32.8	3.8	5.5
	35 to 44	1,858	1,728	130	5,401,744	2,741,290	2,660,454	34.4	63.0	4.9	32.8	36.0	60.1	66.0	4.0	5.7
	45 to 54	933	877	56	3,806,109	1,887,994	1,918,115	24.5	46.5	2.9	22.9	26.1	43.4	49.5	2.2	3.7
	55 to 64	287	259	28	2,359,866	1,146,990	1,212,876	12.2	22.6	2.3	10.8	13.6	19.8	25.3	1.5	3.2
	65 to 74	63	56	7	1,954,134	879,924	1,074,210	3.2	6.4	0.7 *	2.4	4.0	4.7	8.0	0.2	1.1
	75 to 84	12	10	2	1,161,701	465,740	695,961	1.0	2.1 *	0.3 *	0.4	1.6	0.8	3.5	0.0	0.7
	85 & Older	2	0	2	371,118	112,258	258,860	0.5 *	0.0 +	0.8 *	0.0	1.3	-	-	0.0	1.8
	Unknown	0	0	0												
	Total	4,207	3,838	369	32,383,811	16,227,924	16,155,887	13.0	23.7	2.3	12.6	13.4	22.9	24.4	2.1	2.5
ASIAN/OTHER																
	Under 1	0	0	0	60,717	31,247	29,470	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
	1 to 4	2	0	2	254,397	131,069	123,328	0.8 *	0.0 +	1.6 *	0.0	1.9	-	-	0.0	3.9
	5 to 14	0	0	0	564,354	288,489	275,865	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
	15 to 24	1	1	0	533,767	274,693	259,074	0.2 *	0.4 *	0.0 +	0.0	0.6	0.0	1.1	-	-
	25 to 34	23	20	3	599,056	301,165	297,891	3.8	6.6	1.0 *	2.3	5.4	3.7	9.6	0.0	2.1
	35 to 44	54	52	2	631,504	303,109	328,395	8.6	17.2	0.6 *	6.3	10.8	12.5	21.8	0.0	1.5
	45 to 54	26	25	1	438,067	207,939	230,128	5.9	12.0	0.4 *	3.7	8.2	7.3	16.7	0.0	1.3
	55 to 64	8	6	2	256,917	120,782	136,135	3.1 *	5.0 *	1.5 *	1.0	5.3	1.0	8.9	0.0	3.5
	65 to 74	2	2	0	188,491	81,782	106,709	1.1 *	2.4 *	0.0 +	0.0	2.5	0.0	5.8	-	-
	75 to 84	0	0	0	92,392	39,642	52,750	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
	85 & Older	0	0	0	26,336	11,231	15,105	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
	Unknown	0	0	0												
	Total	116	106	10	3,645,998	1,791,148	1,854,850	3.2	5.9	0.5 *	2.6	3.8	4.8	7.0	0.2	0.9
BLACK																
	Under 1	0	0	0	37,276	18,939	18,337	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
	1 to 4	2	2	0	170,539	86,886	84,153	1.2 *	2.3 *	0.0 +	0.0	2.8	0.0	5.5	-	-
	5 to 14	4	1	3	388,094	196,545	191,549	1.0 *	0.5 *	1.6 *	0.0	2.0	0.0	1.5	0.0	3.3
	15 to 24	10	4	6	345,698	182,527	163,171	2.9 *	2.2 *	3.7 *	1.1	4.7	0.0	4.3	0.7	6.6
	25 to 34	184	150	34	395,287	203,575	191,712	46.5	73.7	17.7	39.8	53.3	61.9	85.5	11.8	23.7
	35 to 44	388	333	55	371,892	180,097	191,795	104.3	184.9	28.7	93.9	114.7	165.0	204.8	21.1	36.3
	45 to 54	194	167	27	242,802	114,139	128,663	79.9	146.3	21.0	68.7	91.1	124.1	168.5	13.1	28.9
	55 to 64	57	46	11	152,306	71,336	80,970	37.4	64.5	13.6 *	27.7	47.1	45.8	83.1	5.6	21.6
	65 to 74	11	11	0	102,194	43,656	58,538	10.8 *	25.2 *	0.0 +	4.4	17.1	10.3	40.1	-	-
	75 to 84	4	3	1	53,430	19,675	33,755	7.5 *	15.2 *	3.0 *	0.1	14.8	0.0	32.5	0.0	8.8
	85 & Older	0	0	0	15,883	4,669	11,214	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
	Unknown	0	0	0												
	Total	854	717	137	2,275,401	1,121,544	1,153,857	37.5	63.9	11.9	35.0	40.0	59.3	68.6	9.9	13.9
HISPANIC																
	Under 1	1	0	1	252,617	128,626	123,991	0.4 *	0.0 +	0.8 *	0.0	1.2	-	-	0.0	2.4
	1 to 4	1	0	1	1,034,656	527,237	507,419	0.1 *	0.0 +	0.2 *	0.0	0.3	-	-	0.0	0.6
	5 to 14	4	2	2	1,816,510	925,990	890,520	0.2 *	0.2 *	0.2 *	0.0	0.4	0.0	0.5	0.0	0.5
	15 to 24	20	15	5	1,436,639	749,483	687,156	1.4	2.0	0.7 *	0.8	2.0	1.0	3.0	0.1	1.4
	25 to 34	320	282	38	1,808,376	1,012,882	795,494	17.7	27.8	4.8	15.8	19.6	24.6	31.1	3.3	6.3
	35 to 44	390	362	28	1,372,005	720,340	651,665	28.4	50.3	4.3	25.6	31.2	45.1	55.4	2.7	5.9
	45 to 54	156	146	10	747,447	376,227	371,220	20.9	38.8	2.7 *	17.6	24.1	32.5	45.1	1.0	4.4
	55 to 64	41	33	8	416,154	200,126	216,028	9.9	16.5	3.7 *	6.8	12.9	10.9	22.1	1.1	6.3
	65 to 74	14	11	3	280,103	126,447	153,656	5.0	8.7 *	2.0 *	2.4	7.6	3.6	13.8	0.0	4.2
	75 to 84	2	2	0	122,130	48,089	74,041	1.6 *	4.2 *	0.0 +	0.0	3.9	0.0	9.9	-	-
	85 & Older	0	0	0	44,103	15,454	28,649	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
	Unknown	0	0	0												
	Total	949	853	96	9,330,740	4,830,901	4,499,839	10.2	17.7	2.1	9.5	10.8	16.5	18.8	1.7	2.6
WHITE																
	Under 1	1	1	0	190,015	97,726	92,289	0.5 *	1.0 *	0.0 +	0.0	1.6	0.0	3.0	-	-
	1 to 4	2	0	2	838,733	431,016	407,717	0.2 *	0.0 +	0.5 *	0.0	0.6	-	-	0.0	1.2
	5 to 14	2	0	2	2,145,987	1,103,170	1,042,817	0.1 *	0.0 +	0.2 *	0.0	0.2	-	-	0.0	0.5
	15 to 24	15	12	3	1,901,763	992,138	909,625	0.8	1.2	0.3 *	0.4	1.2	0.5	1.9	0.0	0.7
	25 to 34	460	418	42	2,554,658	1,310,825	1,243,833	18.0	31.9	3.4	16.4	19.7	28.8	34.9	2.4	4.4
	35 to 44	1,026	981	45	3,026,343	1,537,744	1,488,599	33.9	63.8	3.0	31.8	36.0	59.8	67.8	2.1	3.9
	45 to 54	557	539	18	2,377,793	1,189,689	1,188,104	23.4	45.3	1.5	21.5	25.4	41.5	49.1	0.8	2.2
	55 to 64	181	174	7	1,534,489	754,746	779,743	11.8	23.1	0.9 *	10.1	13.5	19.6	26.5	0.2	1.6
	65 to 74	36	32	4	1,383,346	628,039	755,307	2.6	5.1	0.5 *	1.8	3.5	3.3	6.9	0.0	1.0
	75 to 84	6	5	1	893,749	358,334	535,415	0.7 *	1.4 *	0.2 *	0.1	1.2	0.2	2.6	0.0	0.6
	85 & Older	2	0	2	284,796	80,904	203,892	0.7 *	0.0 +	1.0 *	0.0	1.7	-	-	0.0	2.3
	Unknown	0	0	0												
	Total	2,288	2,162	126	17,131,672	8,484,331	8,647,341	13.4	25.5	1.5	12.8	13.9	24.4	26.6	1.2	1.7

Note: Rates are per 100,000 population; ICD-9 Codes 042-044.

White, Black, and Asian/Other exclude Hispanic ethnicity. Hispanic includes any race category.

Source: State of California, Department of Finance, Race/Ethnic Population Estimates by County with Age and Sex Detail, 1970-1996, January 1998.  
State of California, Department of Health Services, Death Records.

\* Death rate unreliable, relative standard error is greater than 30%.  
+ Standard error indeterminate, death rate based on no (zero) deaths.  
- Upper and lower limits at the 95% confidence level are indeterminate.



**TABLE 4**  
**DEATHS DUE TO HIV/AIDS**  
**CALIFORNIA COUNTIES. 1994-1996**  
**(Bv Place of Residence)**

COUNTY	DEATHS 1994-1996	1994-1996 DEATHS (AVERAGE)	PERCENT	1995 POPULATION	CRUDE RATE	AGE-ADJUSTED RATE	95% CONFIDENCE LIMITS	
							LOWER	UPPER
CALIFORNIA	17,396	5,798.7	100.0	32,062,912	18.1	16.9	16.4	17.3
ALAMEDA	894	298.0	5.1	1,347,739	22.1	19.4	17.2	21.7
ALPINE	1	0.3	a	1,185	28.1 *	22.6 *	0.0	99.5
AMADOR	9	3.0	0.1	32,572	9.2 *	9.6 *	0.0	20.7
BUTTE	39	13.0	0.2	196,108	6.6	7.0	3.2	10.9
CALAVERAS	4	1.3	a	36,907	3.6 *	4.1 *	0.0	11.5
COLUSA	4	1.3	a	17,799	7.5 *	7.5 *	0.0	20.4
CONTRA COSTA	402	134.0	2.3	867,315	15.4	13.9	11.5	16.3
DEL NORTE	4	1.3	a	27,597	4.8 *	4.9 *	0.0	13.2
EL DORADO	29	9.7	0.2	144,158	6.7 *	6.8 *	2.3	11.3
FRESNO	222	74.0	1.3	754,045	9.8	10.1	7.8	12.5
GLENN	3	1.0	a	26,523	3.8 *	4.0 *	0.0	11.8
HUMBOLDT	35	11.7	0.2	124,481	9.4	8.6	3.6	13.5
IMPERIAL	19	6.3	0.1	137,445	4.6 *	5.3 *	1.1	9.5
INYO	2	0.7	a	18,571	3.6 *	1.0 *	0.0	3.9
KERN	114	38.0	0.7	616,701	6.2	6.2	4.2	8.2
KINGS	15	5.0	0.1	114,902	4.4 *	4.0 *	0.5	7.5
LAKE	20	6.7	0.1	54,984	12.1 *	13.5 *	2.9	24.2
LASSEN	6	2.0	a	28,678	7.0 *	6.3	0.0	15.1
LOS ANGELES	6,278	2,092.7	36.1	9,352,192	22.4	20.8	19.9	21.7
MADERA	28	9.3	0.2	106,429	8.8 *	9.0 *	3.2	14.8
MARIN	137	45.7	0.8	238,981	19.1	15.2	10.7	19.7
MARIPOSA	3	1.0	a	15,903	6.3 *	4.6 *	0.0	14.2
MENDOCINO	34	11.3	0.2	84,269	13.4	12.2 *	5.0	19.5
MERCED	36	12.0	0.2	198,522	6.0	6.4	2.8	10.1
MODOC	0	0.0	0.0	10,064	0.0 +	0.0 +	-	-
MONO	1	0.3	a	10,624	3.1 *	2.0 *	0.0	8.9
MONTEREY	117	39.0	0.7	361,840	10.8	10.1	6.9	13.3
NAPA	39	13.0	0.2	117,735	11.0	10.7	4.8	16.6
NEVADA	13	4.3	0.1	86,506	5.0 *	5.0 *	0.0	9.9
ORANGE	722	240.7	4.2	2,614,851	9.2	8.2	7.2	9.3
PLACER	36	12.0	0.2	203,454	5.9	5.7	2.4	9.1
PLUMAS	4	1.3	a	20,484	6.5 *	10.5 *	0.0	28.9
RIVERSIDE	588	196.0	3.4	1,370,338	14.3	14.6	12.5	16.7
SACRAMENTO	586	195.3	3.4	1,117,748	17.5	16.0	13.8	18.3
SAN BENITO	2	0.7	a	42,604	1.6 *	1.6 *	0.0	5.4
SAN BERNARDINO	442	147.3	2.5	1,581,620	9.3	9.1	7.6	10.6
SAN DIEGO	1,568	522.7	9.0	2,669,280	19.6	19.0	17.3	20.6
SAN FRANCISCO	2,894	964.7	16.6	751,532	128.4	104.4	97.7	111.1
SAN JOAQUIN	138	46.0	0.8	524,611	8.8	8.9	6.3	11.4
SAN LUIS OBISPO	45	15.0	0.3	228,401	6.6	6.5	3.2	9.8
SAN MATEO	296	98.7	1.7	689,731	14.3	12.6	10.1	15.1
SANTA BARBARA	136	45.3	0.8	391,425	11.6	11.0	7.8	14.3
SANTA CLARA	423	141.0	2.4	1,603,340	8.8	7.6	6.4	8.9
SANTA CRUZ	84	28.0	0.5	241,510	11.6	10.3	6.4	14.1
SHASTA	32	10.7	0.2	160,877	6.6 *	7.0 *	2.7	11.3
SIERRA	0	0.0	0.0	3,410	0.0 +	0.0 +	-	-
SISKIYOU	7	2.3	a	44,616	5.2 *	5.3 *	0.0	12.3
SOLANO	234	78.0	1.3	370,556	21.0	19.2	14.9	23.5
SONOMA	272	90.7	1.6	419,459	21.6	19.6	15.5	23.7
STANISLAUS	109	36.3	0.6	413,806	8.8	8.7	5.9	11.6
SUTTER	12	4.0	0.1	73,721	5.4 *	5.4 *	0.0	10.7
TEHAMA	11	3.7	0.1	54,195	6.8 *	7.5 *	0.0	15.2
TRINITY	4	1.3	a	13,363	10.0 *	9.5 *	0.0	26.1
TULARE	61	20.3	0.4	349,860	5.8	6.3	3.5	9.0
TUOLUMNE	9	3.0	0.1	51,516	5.8 *	5.5 *	0.0	11.8
VENTURA	122	40.7	0.7	712,762	5.7	5.2	3.6	6.9
YOLO	38	12.7	0.2	150,812	8.4	9.3	4.1	14.4
YUBA	13	4.3	0.1	62,255	7.0 *	7.2 *	0.4	13.9

Note: Rates are per 100,000 population.

\* Death rate unreliable (relative standard error is greater than 30%).

a Represents a percentage of more than zero but less than 0.05.

+ Standard error indeterminate, death rate based on no (zero) deaths.

- Confidence limit is not calculated for zero events.

Source: State of California, Department of Finance, Race/Ethnic Population Estimates by County with Age and Sex Detail, 1970-1996, January 1998.  
State of California, Department of Health Services, Death Records.

**TABLE 5**  
**POPULATION ESTIMATES**  
**BY RACE/ETHNICITY, SEX, AND AGE**  
**CALIFORNIA. 1996**

RACE/ ETHNICITY	TOTAL	AGE GROUPS										
		Under 1	1 to 4	5 to 14	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85 & Older
Total	32,383,811	540,625	2,298,325	4,914,945	4,217,867	5,357,377	5,401,744	3,806,109	2,359,866	1,954,134	1,161,701	371,118
Male	16,227,924	276,538	1,175,708	2,514,194	2,198,841	2,828,447	2,741,290	1,887,994	1,146,990	879,924	465,740	112,258
Female	16,155,887	264,087	1,122,617	2,400,751	2,019,026	2,528,930	2,660,454	1,918,115	1,212,876	1,074,210	695,961	258,860
Asian/Other	3,645,998	60,717	254,397	564,354	533,767	599,056	631,504	438,067	256,917	188,491	92,392	26,336
Male	1,791,148	31,247	131,069	288,489	274,693	301,165	303,109	207,939	120,782	81,782	39,642	11,231
Female	1,854,850	29,470	123,328	275,865	259,074	297,891	328,395	230,128	136,135	106,709	52,750	15,105
Black	2,275,401	37,276	170,539	388,094	345,698	395,287	371,892	242,802	152,306	102,194	53,430	15,883
Male	1,121,544	18,939	86,386	196,545	182,527	203,575	180,097	114,139	71,336	43,656	19,675	4,669
Female	1,153,857	18,337	84,153	191,549	163,171	191,712	191,795	128,663	80,970	58,538	33,755	11,214
Hispanic	9,330,740	252,617	1,034,656	1,816,510	1,436,639	1,808,376	1,372,005	747,447	416,154	280,103	122,130	44,103
Male	4,830,901	128,626	527,237	925,990	749,483	1,012,882	720,340	376,227	200,126	126,447	48,089	15,454
Female	4,499,839	123,991	507,419	890,520	687,156	795,494	651,665	371,220	216,028	153,656	74,041	28,649
White	17,131,672	190,015	838,733	2,145,987	1,901,763	2,554,658	3,026,343	2,377,793	1,534,489	1,383,346	893,749	284,796
Male	8,484,331	97,726	431,016	1,103,170	992,138	1,310,825	1,537,744	1,189,689	754,746	628,039	358,334	80,904
Female	8,647,341	92,289	407,717	1,042,817	909,625	1,243,833	1,488,599	1,188,104	779,743	755,307	535,415	203,892

Note: White, Black, and Asian/Other exclude Hispanic ethnicity. Hispanic includes any race category.

Source: State of California, Department of Finance, Race/Ethnic Population Estimates with Age and Sex Detail, 1970-1996, January 1998.

## Notes

In accordance with the National Center for Health Statistics, the AIDS death data presented in this report are ICD-9 codes 042-044.

The term “significant” within the text indicates either statistically significant based on the slope of a least-squares line not equal to zero ( $p < .05$ ) for regression analysis, or statistically significant based on the difference between two independent rates ( $p < .05$ ).

As with any vital statistics data, caution needs to be exercised when analyzing small numbers, including the rates derived from them. Death rates calculated from a small number of deaths and/or population tend to be unreliable and subject to significant variation from one year to the next. To assist the reader, 95 percent confidence intervals are provided in the data tables as a tool for measuring the reliability of the death rates. Also, rates with a relative standard error (coefficient of variation) greater than 30 percent are indicated with an “\*” (asterisk).

The four race/ethnic groups presented in the tables are mutually exclusive. White, Black, and Asian/Other exclude Hispanic ethnicity, while Hispanic includes any race/ethnic group. In order to remain consistent with the population data obtained from the Department of Finance, the “White race/ethnic group” includes: White, Other (specified), Not Stated, and Unknown; and the “Asian/Other race/ethnic group” includes: Aleut, American Indian, Asian Indian, Asian (specified/unspecified), Cambodian, Chinese, Eskimo, Filipino, Guamanian, Hawaiian, Japanese, Korean, Vietnamese, Other Pacific Islander, Samoan, Thai, and Laotian. Race/ethnic data are not presented for years prior to 1985 due to the unavailability of mutually exclusive data for Hispanics and Whites. In addition, caution should be exercised in the interpretation of mortality data by race/ethnicity. Misclassification of race/ethnicity on the death certificate may contribute to death rates that may be underestimated among Hispanics and Asian/Other.

The method used to analyze vital statistics data is also important. Analyzing only the number of deaths has its disadvantages and can be misleading because the population at risk is not taken into consideration. Crude death rates, on the other hand, show the actual rate of dying in a given population, but the age composition of that population is not taken into consideration. Therefore, the use of age-adjusted death rates becomes the preferred method for measuring death rates over time, and for comparing death rates between race/ethnic groups, sex, and geographic areas. The 1940 United States (standard million) population was used as the basis for age-adjusting in this report.

For a more complete explanation of the age-adjusting methodology see the *Healthy People 2000 Statistical Notes* publication.<sup>11</sup> Detailed information on data quality and limitations as well as the formulas used to calculate vital statistics rates are presented in the appendix of the annual report, *Vital Statistics of California*.<sup>12</sup> Another source of information is the Department of Health Services, Center for Health Statistics Home Page [[www.dhs.ca.gov/org/hisp/chs/chsindex.htm](http://www.dhs.ca.gov/org/hisp/chs/chsindex.htm)].

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